

Handwritten: HJW RGN
JAB
ADP file

27 February 1969

MEMORANDUM FOR THE RECORD

SUBJECT: Meeting of the Automap Data Bank Study Group,
26 February 1969

25X1A9a

25X1A9a

1. The group met for the sixth time on 26 February 1969. Present at this working session were [REDACTED]. The subject was retrieval and this was subdivided into the hardware and software aspects.

25X1A9a

2. The hardware aspects of retrieval began with a description of the proposed stages of Automap development. Stage 1 calls for the adaptation of the plot and retrieval programs for on-line entry via the IBM 2741 terminal. Data Banks I and II would be accessed. Stage 2 would use an IBM 2250 Visual Display Console to both input and view the image. If satisfactory, the operator could signal for the creation of a plot tape. The stages would be due completed 90 days and 9 months respectively after the acceptance of the IBM 360 Model 67 computer. [REDACTED] questioned the inclusion of Data Bank II in an on-line system at this time. Allowing 50% compaction of our present format, 750,000 points could be put on one disk pack. However, Bank II calls for over 2,000,000 points and would occupy at least three packs. With only one or two disk drives available to the system, Bank II seems incompatible in the remote system anticipated. In brief, it can be assumed that on-line retrieval via a keyboard is required and that the plot and retrieval programs, index, and some of the data banks must also be on-line.

25X6A

3. Turning to software, the group reviewed the retrieval events observed in the [REDACTED] experiment. A chart showing the event, desired type of action, and comments was constructed.

<u>Event</u>	<u>Action</u>	<u>Comments</u>
a. projection selected	keyboard	
b. frame delineated	keyboard	items a-d must
c. center computed	keyboard	be initial
d. scale chosen	keyboard	
e. plate separation established	manual	planning process
f. separation elements picked	manual	planning process
g. sub-elements picked	keyboard	will define below
h. operator instructions prepared	keyboard	incorporate with g.

~~CONFIDENTIAL~~

Stamp: 1
CONFIDENTIAL
and
declassification

CONFIDENTIAL

- 2 -

The chart was made to emphasize the need to integrate the plot and retrieval programs. A consensus on this matter now exists. Operator instructions should be incorporated with each file to be plotted. At the time of retrieval, plate and file identifiers, mode (pen, scribe, light), line weight, and color would be entered. At plot time this information would be automatically typed out on the teletypewriter for the plotter operator before each file to be plotted.

4. The terms "sub-element" and "file" used above interchangeably need further definition and amplification. Any map feature or group of map features plotted in the same manner and on the same separation plate would be a file or sub-element. For example, a map grid, coastlines and rivers appearing on the same plate, or cities would all be files to be plotted separately. These features can be derived from the plot program (CAM), the data banks, or other records introduced on an ad hoc basis for a particular map.

a. CAM Features

grids	symbols
range rings	characters
azimuths	registration ticks*
circles	

*used with every file.

b. Data Bank

The need exists to retrieve all items (coastline and boundaries) for small scale plots at the world-hemisphere-continent levels and selected items for larger scale plots at the continent-region-country-locale levels. After discussion, it was agreed that no change in the manner in which we process Data Bank I (ex-Small Scale) is warranted. Even after allowing for an increase to a final 100,000 points, it is less trouble for the computer to process all points and reject up to two-thirds than it would be to selectively retrieve from the same Data Bank. Retrieval from Data Banks II (ex-Page-Size) and the hypothetical III must be selective for two reasons. The first reason is that selection is a function of design--there will always be more data in these banks than will be wanted on any one map. Secondly, selection will reduce computer processing time, plotting time, and manual elimination of unwanted detail. As we found out in

25X6A [REDACTED], index selection was primarily by feature and scale, and secondarily by area and line segment number. The update program establishes the criteria, usually feature, and then the qualifiers--scale, area, and line segment number. Three examples were cited from the

25X6A [REDACTED] exercise. The first one required the coastlines, islands, and lakes be plotted at the same line weight on the same plate. The request or specification read "Feature C, Feature I (Scales 1-4 only),

- 3 -

25X6A Feature L." The next example specified "Feature B, Scales 3 and 6, H 217 only" to generate first order administrative and international water boundaries, in [REDACTED] only. The third example asked for "Feature R, Scale 1 plus line segments 502103 and 502134" to obtain a general river pattern plus two other selected streams from the Scale 3 level. The program for retrieving should be altered and the eventual structuring will be dependent on the storage utilized.

c. Other Files

25X1A2g Two types of information to be plotted, other than that supplied by the data bank or CAM, have been experienced. One type may already be in machine form--cards, magnetic tape, or disk. These could be in the Computer Center, Cartography Division, or supplied by the map requester. Maintaining in or converting these to the Automap format may be a problem considering the dynamic nature of some of the files [REDACTED]. The second type is that point data entered on the keyboard with the map. This is presently handled within the CAM system.

5. Session 7 will be in Room GH-08 from .0900 to 1045 on Wednesday, 5 March 1969. Retrieval strategies and storage will be the topics for discussion.

25X1A9a [REDACTED]